

In The Claims:

Please amend the claims as follows:

Claims 1-31. (canceled)

32. (Currently amended) Medical product the surface of which comprises at least partially a polymer layer, wherein substances for the polymer layer comprises ~~consists of~~ at least 25 % by weight of substances participating in the polymerization reaction ~~and the polymer layer comprises substances~~, wherein the substances participating in the polymerization reaction contain a linear or branched and a substituted or non substituted alkyl moiety with at least one multiple bond and the substances participating in the polymerization reaction are capable of auto-polymerization and the polymerization reaction takes place by means of exposure to aerial oxygen and UV light after coating the surface of the medical product with the substances for the polymer layer.

33. (previously presented) Medical product according to claim 32, wherein the alkyl moiety containing at least one multiple bond has 7 to 50 carbon atoms.

34. (previously presented) Medical product according to claim 32, wherein the substances containing at least one alkyl moiety with at least one multiple bond are covalently linked with each other via polymerization of the at least one multiple bond.

35. (previously presented) Medical product according to claim 32, wherein the substances containing at least one alkyl moiety with at least one multiple bond are chosen from the group comprising fatty acids, fatty acid esters, fatty acid derivatives, ethers, diethers, tetraethers, lipids, oils, fats, glycerides, tri-glycerides, glycol esters, glycerin esters as well as

mixtures of the aforementioned substances.

36. (previously presented) Medical product according to claim 35, wherein in the case of the lipids mono- or poly-unsaturated fatty acids and/or mixtures of these unsaturated fatty acids in the form of their triglycerides and/or in non glycerin bound, free form are concerned.

Claim 37. (cancelled)

38. (previously presented) Medical product according to claim 35, characterized in that in the case of the oils linseed oil, hempseed oil, corn oil, walnut oil, rape oil, soy bean oil, sun flower oil, poppy-seed oil, safflower oil, wheat germ oil, grape-seed oil, evening primrose oil, borage oil, black cumin oil, algae oil, fish oil, cod-liver oil and/or mixtures of the aforementioned substances are concerned.

39. (previously presented) Medical product according to claim 38, characterized in that the oils and the mixtures of the oils, respectively, contain an amount of at least 40% by weight of unsaturated fatty acids.

40. (Currently amended) Medical product according to claim 71[[~~32~~]], characterized in that the substances not participating in the polymerization reaction comprise saturated fatty acids, saturated fatty acid esters, saturated fatty acid derivatives, saturated ethers, saturated lipids, lipoids, saturated fats and oils, saturated glycerides, saturated triglycerides, saturated glycol esters, saturated glycerin esters, waxes, biostable or biodegradable polymers or mixtures of the aforementioned substances.

41. (previously presented) Medical product according to claim 40, characterized in that in the case of the saturated fatty acids the long-chain fatty acids beyond a chain length of 12

carbon atoms as well as mixtures thereof and/or natural lipoids such as palm kernel fat, coconut fat as well as their mixtures are concerned.

Claims 42-44. (cancelled)

45. (Currently amended) Medical product according to claim 71~~[[32]]~~, characterized in that the substances not participating in the polymerization reaction comprise antiproliferative, antiinflammatory and/or antithrombotic active agents chosen from the group comprising sirolimus (rapamycin), everolimus, pimecrolimus, somatostatin, tacrolimus, roxithromycin, dunaimycin, ascomycin, bafilomycin, erythromycin, midecamycin, josamycin, concanamycin, clarithromycin, troleandomycin, folimycin, cerivastatin, simvastatin, lovastatin, fluvastatin, rosuvastatin, atorvastatin, pravastatin, pitavastatin, vinblastine, vincristine, vindesine, vinorelbine, etoposide, teniposide, nimustine, carmustine, lomustine, cyclophosphamide, 4-hydroxycyclophosphamide, estramustine, melphalan, ifosfamide, trofosfamide, chlorambucil, bendamustine, dacarbazine, busulfan, procarbazine, treosulfan, temozolomide, thiotepa, daunorubicin, doxorubicin, aclarubicin, epirubicin, mitoxantrone, idarubicin, bleomycin, mitomycin, dactinomycin, methotrexate, fludarabine, fludarabine-5'-dihydrogenphosphate, cladribine, mercaptopurine, thioguanine, cytarabine, fluorouracil, gemcitabine, capecitabine, docetaxel, carboplatin, cisplatin, oxaliplatin, amsacrine, irinotecan, topotecan, hydroxycarbamide, miltefosine, pentostatin, aldesleukin, tretinoin, asparaginase, pegaspargase, anastrozole, exemestane, letrozole, formestane, aminoglutethimide, adriamycin, azithromycin, spiramycin, cepharantin, smc proliferation inhibitor-2w, epothilone A and B, mitoxantrone, azathioprine, mycophenolatmofetil, c-myc-antisense, b-myc-antisense, betulinic acid,

camptothecin, PI-88 (sulfated oligosaccharide), melanocyte stimulating hormone (α -MSH), activated protein C, IL-1 β inhibitor, thymosine α -1, fumaric acid and its esters, calcipotriol, tacalcitol, lapachol, β -lapachone, podophyllotoxin, betulin, podophyllic acid 2-ethylhydrazide, molgramostim (rhuGM-CSF), peginterferon α -2b, lenograstim (r-HuG-CSF), filgrastim, macrogol, dacarbazine, basiliximab, daclizumab, selectin (cytokine antagonist), CETP inhibitor, cadherines, cytokinin inhibitors, COX-2 inhibitor, NF κ B, angiopeptin, ciprofloxacin, camptothecin, fluroblastin, monoclonal antibodies, which inhibit the muscle cell proliferation, bFGF antagonists, probucol, prostaglandins, 1,11-dimethoxycanthin-6-one, 1-hydroxy-11-methoxycanthin-6-one, scopoletin, colchicine, NO donors such as pentaerythritol tetranitrate and syndnoeimines, S-nitrosoderivatives, tamoxifen, staurosporine, β -estradiol, α -estradiol, estriol, estrone, ethinylestradiol, fosfestrol, medroxyprogesterone, estradiol cypionates, estradiol benzoates, tranilast, kamebakaurin and other terpenoids, which are applied in the therapy of cancer, verapamil, tyrosine kinase inhibitors (tyrphostines), cyclosporine A, paclitaxel and derivatives thereof such as 6- α -hydroxy-paclitaxel, baccatin, taxotere, synthetically produced as well as from native sources obtained macrocyclic oligomers of carbon suboxide (MCS) and derivatives thereof, mofebutazone, acetaminophen, diclofenac, lonazolac, dapsone, o-carbamoylphenoxyacetic acid, lidocaine, ketoprofen, mefenamic acid, piroxicam, meloxicam, chloroquine phosphate, penicillamine, tumstatin, avastin, D-24851, SC-58125, hydroxychloroquine, auranofin, sodium aurothiomalate, oxaceprol, celecoxib, β -sitosterin, ademetionine, myrtecaine, polidocanol, nonivamide, levomenthol, benzocaine, aescin, ellipticine, D-24851 (Calbiochem), colcemid, cytochalasin A-E, indanocene, nocodazole, S 100 protein,

bacitracin, vitronectin receptor antagonists, azelastine, guanidyl cyclase stimulator, tissue inhibitor of metal proteinase-1 and -2, free nucleic acids, nucleic acids incorporated into virus transmitters, DNA and RNA fragments, plasminogen activator inhibitor-1, plasminogen activator inhibitor-2, antisense oligonucleotides, VEGF inhibitors, IGF-1; active agents from the group of the antibiotics such as cefadroxil, cefazolin, cefaclor, cefotaxim, tobramycin, gentamycin, penicillins such as dicloxacillin, oxacillin, sulfonamides, metronidazol, antithrombotics such as argatroban, aspirin, abciximab, synthetic antithrombin, bivalirudin, coumadin, enoxaparin, desulphated and N-reacetylated heparin, tissue plasminogen activator, GpIIb/IIIa platelet membrane receptor, factor Xa inhibitor antibodies, heparin, hirudin, r-hirudin, PPACK, protamin, sodium salt of 2-methylthiazolidine-2,4-dicarboxylic acid, prourokinase, streptokinase, warfarin, urokinase, vasodilators such as dipyridamole, trapidil, nitroprussides, PDGF antagonists such as triazolopyrimidine and seramin, ACE inhibitors such as captopril, cilazapril, lisinopril, enalapril, losartan, thio-protease inhibitors, prostacyclin, vapiprost, α , β and γ interferon, histamine antagonists, serotonin blockers, apoptosis inhibitors, apoptosis regulators such as p65, NF-kB or Bcl-xL antisense oligonucleotides, halofuginone, nifedipine, tocopherol, vitamin B1, B2, B6 and B12, folic acid, tranilast, molsidomine, tea polyphenols, epicatechin gallate, epigallocatechin gallate, Boswellinic acids and derivatives thereof, leflunomide, anakinra, etanercept, sulfasalazine, etoposide, dicloxacillin, tetracycline, triamcinolone, mutamycin, procainamid, D24851, SC-58125, retinoic acid, quinidine, disopyramide, flecainide, propafenone, sotalol, amidorone, natural and synthetically produced steroids such as bryophyllin A, inotodiol, maquiroside A, ghalakinoside, mansonine, strebloside, hydrocortisone,

betamethasone, dexamethasone, non-steroidal substances (NSAIDS) such as fenoprofen, ibuprofen, indomethacin, naproxen, phenylbutazone and other antiviral agents such as acyclovir, ganciclovir and zidovudine, antimycotics such as clotrimazole, flucytosine, griseofulvin, ketoconazole, miconazole, nystatin, terbinafine, antiprozoal agents such as chloroquine, mefloquine, quinine, moreover natural terpenoids such as hippocaesculin, barringtogenol-C21-angelate, 14-dehydroagrostistachin, agroskerin, agrostistachin, 17-hydroxyagrostistachin, ovatodiolids, 4,7-oxycycloanisomelic acid, baccharinoids B1, B2, B3 and B7, tubeimoside, bruceanol A, B and C, bruceantinoside C, yadanziosides N and P, isodeoxyelephantopin, tomenphantopin A and B, coronarin A, B, C and D, ursolic acid, hyptatic acid A, zeorin, iso-iridogermanal, maytenfoliol, effusantin A, excisanin A and B, longikaurin B, sculponeatin C, kamebaunin, leukamenin A and B, 13,18-dehydro-6- α -seneciolyloxychaparrin, taxamairin A and B, regenilol, triptolide, moreover cymarin, apocymarin, aristolochic acid, anopterin, hydroxyanopterin, anemonin, protoanemonin, berberine, cheliburin chloride, cictoxin, sinococuline, bombrestatin A and B, cudraisoflavone A, curcumin, dihydronitidine, nitidine chloride, 12- β -hydroxypregnadiene-3,20-dione, bilobol, ginkgol, ginkgolic acid, helenalin, indicine, indicine-N-oxide, lasiocarpine, inotodiol, glycoside 1a, podophyllotoxin, justicidin A and B, larreatin, malloterin, mallotochromanol, isobutyrylmallotochromanol, maquiroside A, marchantin A, maytansine, lycoridicin, margetine, pancratistatin, liriodenine, oxoushinsunine, aristolactam-AII, bisparthenolidine, periplocoside A, ghalakinoside, ursolic acid, deoxypsorospermin, psychorubin, ricin A, sanguinarine, manwu wheat acid, methylsorbifolin, sphatheliachromen, stizophyllin, mansonine, strebloside, akagerine, dihydrousambarensine,

hydroxyusambarine, strychnopentamine, strychnophylline, usambarine, usambarensine, berberine, liriodenine, oxoushinsunine, daphnoretin, lariciresinol, methoxylariciresinol, syringaresinol, umbelliferon, afromoson, acetylvismione B, desacetylvismione A, vismione A and B and sulfur containing amino acids such as cystine as well as salts and/or mixtures of the aforementioned active agents.

46. (previously presented) Medical product according to claim 45, characterized in that the active agent is chosen from the group comprising tacrolimus, pimecrolimus, PI-88, paclitaxel and its derivatives, trapidil, α - and β -estradiol, sodium salt of 2-methylthiazolidine-2,4-dicarboxylic acid, macrocyclic carbon suboxide (MCS) and its derivatives, sirolimus, fumaric acid and its esters, activated protein C, interleukin-1 β inhibitors and melanocyte-stimulating hormone (α -MSH), cystine, ellipticine, bohemine, indanocine, colcemid and derivatives thereof, methionine as well as salts and/or mixtures of the aforementioned active agents.

47. (previously presented) Medical product according to claim 45, wherein at least one antiproliferative, antiinflammatory and/or antithrombotic active agent is bound covalently and/or adhesively under and/or in and/or on the polymer layer.

48. (previously presented) Medical product according to claims 45, characterized in that the antiproliferative, antiinflammatory and/or antithrombotic active agent according to claim 14 is contained in a pharmaceutically active concentration of 0.001 to 10 mg per cm² surface of the medical product.

Claims 49-57 (canceled)

58. (Currently amended) Medical product according to claim 32[[~~4~~]], characterized in that in the case of the medical product a stent is concerned.

59. (previously presented) Medical product according to claim 58, wherein the stent is suitable to prevent or to reduce restenosis.

60. (previously presented) Medical product according to claim 58, wherein the stent is suitable to continuously release at least one antiproliferative, antiinflammatoric, antiangiogenic and/or antithrombotic active agent.

Claims 61-70 (canceled)

71. (New) Medical product according to claim 32, wherein the substances for the polymer layer further comprises substances not participating in the polymerization reaction.